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AKIN GUMP
STRAUSS HAUER & FELD LLP
Attorneys at Law

TOM W. DAVIDSON
202.887.4011
202.955.7719
tdavidson@akingump.com

May 3, 2004

VIA MESSENGER

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MAY - 3 2004

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Petition For Rulemaking
Amendment of Section 73.622(b) of The Commission's Rules, DTV Table of Allotments (Fresno, California)

Dear Ms. Dortch:

On behalf of KSEE License, Inc., licensee of KSEE, Fresno, California, enclosed for filing please find an original and eight copies of a Petition For Rulemaking to amend Section 73.622(b) of the rules of the Federal Communications Commission to substitute digital television ("DTV") channel 38 for DTV channel 16 at Fresno.

Please direct any inquiries to the undersigned.

Sincerely,

Tom W. Davidson / NGR

Tom W. Davidson, Esq.

Enclosures

No. of Copies rec'd 0+8
List ABCDE
MB 04-125

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 73.622(b) of	)	MM Docket No. _____
The Commission's Rules,	)	RM No. _____
DTV Table of Allotments	)	
(Fresno, California)	)	

RECEIVED

MAY - 3 2004

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: Video Division

PETITION FOR RULEMAKING

KSEE License, Inc. ("KSEE License"), by its attorneys and pursuant to Section 73.623 of the rules of the Federal Communications Commission ("Commission"), 47 C.F.R. § 73.623, hereby requests that the Commission initiate a rulemaking proceeding for the purpose of amending the digital television ("DTV") table of allotments, 47 C.F.R. 73.622(b), to substitute DTV channel 38 for DTV channel 16 at Fresno, California, as the allotment for DTV station KSEE, Fresno, California ("KSEE").

I. BACKGROUND

KSEE License is the licensee of commercial television station KSEE, NTSC channel 24, Fresno, California, and DTV channel 16, Fresno, California. KSEE License commenced digital operation on May 16, 2003 and was granted a DTV license ("DTV License") on August 21, 2003.[1] For several months following the commencement of digital operation, KSEE License was unaware of any complaints regarding interference caused by its operations on DTV channel 16 in Fresno.

[1] FCC File No. BLCDT-20030523AEW.

However, as further described below, beginning in August 2003, KSEE License was contacted by several land mobile licensees in the San Francisco and Los Angeles markets claiming that their land mobile operations on channel 16 were receiving interference.

In August 2003, Portable Walkie Talkies To Go ("PWTTG"), a private land mobile licensee operating in the San Francisco market, contacted KSEE License and claimed to be receiving interference to its channel 16 land mobile receivers caused by KSEE's digital operations. Upon learning of PWTTG's interference concerns, KSEE License conducted a thorough technical review of its facilities and determined that its operation of KSEE was fully compliant with the KSEE DTV license and with the Commission's rules and policies. In October 2003, KSEE License was contacted by Champion Communication Services, Inc. ("Champion"), another private land mobile licensee operating in the San Francisco market. Champion also claimed to be receiving interference to its land mobile operations on channel 16. Based on the review conducted in August 2003, KSEE License notified Champion that KSEE's operation was fully compliant with its license and with the Commission's rules and policies. In October 2003, KSEE License also was contacted by Los Angeles County ("LA County"), a public safety land mobile licensee. LA County claimed that it was receiving interference to its public safety land mobile operations on channel 16 in the northernmost portion of Los Angeles County. Because LA County is a public safety licensee, KSEE License voluntarily conducted further studies of the effect of KSEE's digital operation on LA County operations, including on-off tests and power reduction tests, despite the fact that operation of KSEE was fully compliant with all applicable requirements.

In February 2004, Champion requested the Commission to issue a cease and desist order with respect to KSEE's digital operations based on the claim that KSEE's DTV operations were

interfering with Champion's private land mobile operations in the San Francisco market.[2] In March 2004, LA County requested the Commission to take action against KSEE to cause it to cease causing interference to LA County's land mobile operations.[3] Specifically, LA County indicated that two of its 21 transmitter sites (i.e., Tejone Peak and Bald Mountain) are experiencing interference, and that interference experienced from one of the sites makes portable radio operation virtually impossible and disrupts mobile radio operation.[4] KSEE License does not dispute that the land mobile operations of PWTTG, Champion, and LA County may be receiving interference from KSEE's DTV operations on channel 16. However, KSEE License is fully spaced with respect to Los Angeles and San Francisco land mobile operations and otherwise is operating in full compliance with all applicable FCC technical rules. As such, KSEE License is not required under the FCC's rules to take any action to remedy any such interference. Accordingly, KSEE License has opposed and continues to oppose the filings made by Champion and LA County.

Nevertheless, KSEE License has performed a comprehensive analysis of potential solutions to resolve the pending dispute. As explained in the attached engineering statement, KSEE believes that there is no simple or inexpensive solution.[5] The interference is co-channel, which means that the problem cannot be resolved by installation of band pass filters, notch filters, or ferrite isolators in the land mobile equipment.[6] KSEE cannot modify its antenna to suppress radiation toward the San Francisco or Los Angeles receive sites without effectively destroying coverage to Fresno and

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[2] Letter from Elizabeth R. Sachs, Counsel for Champion Communication Services, Inc., to Joseph Casey, Chief, Spectrum Enforcement Division (Feb. 3, 2004) ("Cease and Desist Request").

[3] KSEE License, Inc., Licensee of KSEE-DT, Channel 16, Fresno, CA, Interference Complaint and Petition (filed Mar. 5, 2004) ("Complaint").

[4] Complaint at 2 and Attachment A.

[5] Engineering Exhibit in Support of Petition for Rulemaking to Change Frequency from DTV Channel 16 to DTV Channel 38, prepared by Dane E. Ericksen ("Engineering Statement").

[6] Engineering Statement at 4.

degrading service throughout the Fresno market.[7] Similarly, the KSEE power level cannot be reduced sufficiently to eliminate the interference without effectively destroying coverage to Fresno and seriously degrading service throughout the market.[8] KSEE's existing facilities on DTV channel 16 thus cannot be modified to resolve the claimed interference. Champion and LA County have contended that their facilities cannot be modified to eliminate or significantly reduce the interference.[9] Based on KSEE's current understanding of the presently available options to resolve

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[7] Id.

[8] Id.

[9] It appears that the two LA County transmitter sites should be modified to conform to conditions imposed on LA County in 1987. As noted in the Engineering Statement, the LA County Tejone Peak and Bald Mountain sites are more than 80 kilometers from the reference coordinates for the city of Los Angeles, which appears to violate Section 90.305(a) of the Commission's rules, 47 C.F.R. § 90.305(a). See Engineering Statement at 2. Although LA County appears to have obtained a waiver for such operation, the waiver was granted in 1987, prior to the adoption of the DTV Table of Allotments and the allocation of DTV channel 16 to Fresno. Request for Waiver of County of Los Angeles, California Sheriff's Department Applicant for Licenses in the Public Safety Radio Service, 2 FCC Rcd, DA 87-790 (June 10, 1987). The waiver is subject to the condition that no interference be caused within the Grade B contour of a Los Angeles television station operation on channel 17, and directs LA County to "take immediate steps to resolve any interference when notified of such by the Commission." Further, in granting the waiver, the Commission reserved the right to "without hearing, suspend, modify or revoke appropriate portions of this waiver." Subsequent to the grant of the waiver, the Commission established a standard for approving requests to operate outside the area prescribed in Section 90.305. Specifically, the Commission determined that any applicant seeking a waiver to operate outside the specified area must demonstrate that it would provide full protection to any existing full-power or low-power television stations. See Application of Goosetown Enterprises, Inc. to Operate a Land Mobile Radio System in the 470-512 MHz Band in Beacon, New York, 16 FCC Rcd 12792 at ¶ 13, n. 46 (2001). From the language of the waiver and the Commission's subsequent action conditioning such land mobile waivers on protection to television stations, it is clear that the Commission intended LA County's operations to be secondary to television operations. Accordingly, LA County should be required to either accept any interference received from KSEE's operations or modify its facilities to comply with the Commission's rules. KSEE License has been advised by its engineering consultant that operation of the two LA County transmitters from sites within the area specified in Section 90.305 would be subject to sufficient terrain shielding to reduce or eliminate interference received from KSEE's operations.

In addition, LA County appears to be particularly concerned about interference that is caused in counties adjacent to Los Angeles County. These counties are outside of LA County's service area and therefore are not subject to any protection from interference. Specifically, a

the pending dispute, KSEE License is seeking a frequency reallocation to change KSEE's digital channel.

II. REQUEST FOR AMENDMENT OF DTV TABLE OF ALLOTMENTS

KSEE License believes that its operation fully complies with the Commission's rules and that no Commission intervention against KSEE License is necessary. Nevertheless, in an overabundance of caution, KSEE License is seeking a frequency reallocation to change KSEE's digital channel in an attempt to eliminate any possible public safety issue without undue delay and maintain without interruption its provision of digital local and national NBC service throughout the Fresno market.[10] KSEE License believes that it can operate on DTV channel 38 in Fresno with the same pattern and power as used from its present transmitter site. As demonstrated in the attached Engineering Statement, KSEE License's proposed digital service on channel 38 fully complies with all applicable Commission rules regarding operation of DTV stations.[11]

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substantial portion of the interference that is the subject of LA County's Complaint appears to occur in Ventura and/or Kern Counties, rather than in the area authorized to be served by LA County. See Complaint, Attachment A, at 3 ("[T]he deputies assigned to Gorman do regularly travel through Ventura and Kern County lines to respond to mutual aid calls from Ventura or Kern County deputies or they commute between home and work location . . . [T]o reduce any radio communications capabilities of these deputies are [sic] a risk to public safety and officer safety").

[10] KSEE is an NBC affiliate that provides national and local news and entertainment programming throughout the Fresno market. For example, this summer, KSEE is scheduled to carry the 2004 Olympic Games in high-definition. Fresno-area viewers depend on KSEE for weather-related and other emergency information. As the DTV transition progresses, more and more viewers in the Fresno area are depending on KSEE's digital signal for this programming. It is critical that KSEE's digital signal be available over the air because cable penetration in the Fresno market is less than 50%. See BIA Media Access Pro Television Analyzer 4.0 (consulted Apr. 20, 2004).

[11] Engineering Statement at 5.

III. CONCLUSION

In light of the foregoing, KSEE License respectfully requests that the Commission commence a rulemaking to amend the DTV table of allotments to substitute DTV channel 38 for DTV channel 16 at Fresno. Based on KSEE's current understanding of the presently available options to resolve the pending dispute, if the Commission authorizes the proposed reallotment, KSEE License intends to promptly submit an application to construct facilities on channel 38 and to commence operation from such facilities as expeditiously as possible.

Respectfully submitted,

KSEE LICENSE, INC.

By: 

Tom W. Davidson, Esq.
AKIN GUMP STRAUSS HAUER & FELD LLP
1333 New Hampshire Avenue, NW
Washington, DC 20036
202.887.4000

Its Attorney

Dated: May 3, 2004

Station KSEE-DT
DTV Channel 16
Fresno, California

Engineering Exhibit in Support of Petition for Rulemaking to Change Frequency from DTV Channel 16 to DTV Channel 38

April 26, 2004

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking to Change Frequency to DTV Channel 38

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by KSEE License, Inc., licensee of TV Station KSEE, NTSC Channel 24, Fresno, California, and also licensee of Station KSEE-DT, DTV Channel 16, Fresno, California, to prepare this engineering exhibit in support of a Petition for Rulemaking to change frequency from DTV Channel 16 to DTV Channel 38.

Reasons for Petition

KSEE-DT was assigned DTV Channel 16 by the FCC, in the December 18, 1998, *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders* to MM Docket 87-268. As mandated by the FCC, KSEE-DT proceeded to build transmitting facilities to operate on its government-assigned DTV Channel 16, in full accordance with all FCC Rules and policies. KSEE-DT commenced equipment tests on February 22, 2003, and commenced program tests on May 16, 2003. A license application to consummate the KSEE-DT construction permit (FCC File No. BMPCDT-20001211ADZ) was filed on May 21, 2003, and a station license was issued on August 21, 2003 (FCC File No. BLCDT-20030523AEW).

On or about August 26, 2003, KSEE-DT received its first complaint of interference to land mobile operations on Channel 16 (482–488 MHz) in the San Francisco Bay Area, from a land mobile operator doing business as Portable Walkie Talkies To Go ("PWTTG"). PWTTG explained that it had begun receiving interference to its Channel 16 land mobile receivers at Mt. Diablo, Mt. Presson, and Mt. Vaca, and had traced the source of that interference to KSEE-DT. Upon receipt of this complaint, the FCC Rules were reviewed, and it was concluded that the only protection afforded to land mobile operations by a co-channel DTV station is that provided by the 250-kilometer separation distance specified in Section 73.623(e) of the FCC Rules. As shown by the attached Figure 1, the distance from KSEE-DT to the San Francisco Channel 16 land mobile reference coordinates is 275.2 kilometers. Since KSEE-DT had constructed its facilities exactly as authorized, it had no further obligation to protect co-channel land mobile operations in the San Francisco Bay Area from interference. Further, this was a case of interference between one commercial user of spectrum and another commercial user of spectrum, both of which are primary in their respective areas. Thus, although KSEE-DT did not intend to cause any interference to PWTTG's operations in the San Francisco Bay Area, KSEE-DT was now a fully licensed DTV station operating on a channel chosen by the FCC, and with facilities meeting all FCC Rules and policies.

On or about October 21, 2003, KSEE-DT's legal representative, Akin, Gump, Strauss, Hauer & Feld, also received a complaint of interference to land mobile operations, this time from Champion Communications Services, Incorporated ("Champion"), also a land mobile licensee operating on

Channel 16 in the San Francisco Bay Area. Based on the research triggered by the earlier PWTTG complaint, it was concluded that KSEE-DT similarly had no further obligation to protect co-channel land mobile operations in the San Francisco Bay Area other than the 250-kilometer spacing requirement; that is, the problem was one of an inadequate separation requirement chosen by the FCC, and not due to any unauthorized operation by KSEE-DT.

Finally, on or about October 24, 2003, KSEE-DT received a complaint from the Los Angeles County Sheriff's Department ("LASD") about interference to its land mobile operations in the northernmost portion of Los Angeles County, also on Channel 16. A check of the separation distance between KSEE-DT and the Los Angeles Channel 16 land mobile reference coordinates was made, and the spacing was found to be 352.8 kilometers, or more than 100 kilometers in excess of the 250-kilometer separation distance called for in Section 73.623(e) of the FCC Rules. Further, and as shown by the attached Figure 2, even the distance to the Tejone Peak LASD receive site* reporting the most severe interference is in excess of 250 kilometers, although the spacing requirement only applies to the separation between the co-channel DTV station and the reference coordinates for the land mobile operation, and not to actual land mobile base station locations.

Reasons Why the 250-kilometer Spacing Requirement Turns Out To Be Insufficient for the KSEE-DT Case

There appear to be several reasons why the sole protection requirement in the FCC Rules, that of a 250-kilometer separation distance, is insufficient to ensure no interference to co-channel land mobile operations in Northern Los Angeles County and in the San Francisco Bay Area:

1. The KSEE-DT transmitting site at Meadow Lakes is a high elevation site; the KSEE-DT center-of-radiation, although only 72.3 meters AGL, is 1,427.4 meters AMSL and 601.1 meters HAAT.

2. The KSEE-DT azimuth (Figure 3A) and elevation (Figure 3B) patterns that optimize coverage to Fresno and to the California Central Valley unfortunately also place the LASD receiving antenna at Tejone Peak almost exactly in the maximas of both patterns. This is the result of earth curvature and the fact that the affected land mobile receive sites are also on high-elevation mountain tops. This was, of course, by happenstance, as the existence of the LASD Tejone Peak receive site, its location, and its height, were unknown when the KSEE-DT antenna design was being optimized.

---

* As shown in Figure 2, the Tejone Peak and Bald Mountain LASD sites are more than 80 kilometers from the Los Angeles reference coordinates, and appear to violate Section 90.305(a) of the FCC Rules, which requires that a base station or mobile relay site be within 80 kilometers of the geographic reference center of the pertinent urbanized area. The Tejone Peak LASD site is 98.4 kilometers from the Los Angeles reference coordinates, and the Bald Mountain LASD site is 88.7 kilometers from the Los Angeles reference coordinates.

3. As shown by the attached Figure 4, the most severely affected LASD site, at Tejone Peak, has unobstructed line of sight to the KSEE-DT transmitting site. The other two sites where LASD reports interference, Bald Mountain and Whittaker Ridge, are terrain obstructed to the KSEE-DT transmitting antenna, so this explains why LASD reports less serious interference at those two sites.

4. There is a similar problem to the mountain top Champion receive sites in the San Francisco Bay Area. As shown by Figure 5A, the Champion receive sites are all in the main beam of the KSEE-DT azimuth pattern, and as shown by Figure 5B the Champion Mt. Diablo receive site is also in the main beam of the KSEE-DT elevation pattern. Figures 5C and 5D show why the electrical beam tilt of 1° was selected for the KSEE-DT antenna, and how this beam tilt unfortunately also maximizes the radiation towards the Champion receive sites. Figures 5C and 5D also show why increasing the electrical beam tilt (ebt) of the KSEE-DT antenna, or adding mechanical beam tilt (mbt), would not be a solution: first, because of the relatively broad half power beam width of 4.6° for the 10-bay Dielectric Model TFU-10DSC C170 transmitting antenna, and second, because any increase in ebt, or the addition of mbt that would be likely to provide the 20 to 30 dB of reduced radiation towards the Champion receive sites most likely necessary to eliminate the interference, would utterly destroy the service to Fresno and the California Central Valley. Since ultimately the KSEE-DT signal will be the sole KSEE signal, the coverage of the DTV facilities has to be optimum. Finally, Figure 6 shows the locations of the various Champion receive sites with respect to the KSEE-DT transmitting antenna, and Figure 7 shows the terrain profiles from the KSEE-DT transmitting antenna to the sites Champion reports have the most serious interference. In the case of the Champion receive site at Mt. Diablo line-of-sight exists, and the Champion receive site at Presson Hill (aka Pression Ridge or Loma Ridge) has only minor terrain blockage, as do the Champion receive sites at Mt. Vaca.

Interference Tests with LASD

After learning of the reported interference to LASD, cooperative tests were conducted between KSEE-DT and LASD on November 13, 2003. Late night on-off tests by KSEE-DT confirmed that it was the source of the interference to the co-channel public safety land mobile operations of LASD in Northern Los Angeles County. Further, those tests disclosed that a power reduction on the order of 40 dB would be required by KSEE-DT to eliminate the interference to the LASD Tejone Peak receive site. Such a massive power reduction, from 326 kW ERP (25.1 dBk) to 0.0326 kW (32.6 watts), or -14.9 dBk, would, of course, completely destroy KSEE-DT's ability to serve Fresno and the surrounding ADI. The substitution of a directional receiving antenna for Tejone peak is not an option, because LASD reports that coverage to the north of Tejone Peak, extending into Kern County, is needed to support communications during mutual aid situations with the Kern County Sheriff. Even if coverage to the north was not a requirement, finding a receiving antenna with a 40 dB or better front-

to-back ratio to the north, while not degrading service to the west, south, and east, might not be practical.

Proposed Solution

Thus, through no fault of its own, KSEE-DT finds itself the subject of two requests for Cease and Desist Orders, one from Champion in San Francisco, and the other from LASD in Los Angeles. The interference is co-channel, meaning that no installation of band pass filters, notch filters, or ferrite isolators in the land mobile equipment would help. KSEE-DT cannot modify its transmitting antenna to suppress radiation towards the San Francisco or Los Angeles receive sites without effectively destroying coverage to Fresno (which the FCC Rules require), to say nothing of seriously degrading service to its ADI. The power reduction needed to eliminate interference to LASD would be so draconian as to also effectively destroy the KSEE-DT coverage.

Allocation studies have been performed, and it has been determined that KSEE-DT could change frequency from DTV Channel 16 to DTV Channel 38, without causing predicted interference to any other full-service NTSC or DTV stations or Class A TV stations. KSEE-DT could continue to transmit from its existing site, with the same optimized antenna design, and the same 326 kW ERP, as now used. The reason for this surprising availability of a full-power, in-core DTV channel in the highly congested California Central Valley is a channel change by Station KSNO-DT, Merced, California. KNSO-DT was originally assigned DTV Channel 38, but amended its frequency to DTV Channel 5, in MM Docket 01-41 (KNSO-DT also proposed to change transmitter location from Mt. Bullion to the Meadow Lakes antenna farm, the same site used by KSEE-DT). That channel change and site move was approved by the FCC in a May 18, 2001, Report & Order, and indeed KSNO-DT is now on the air on DTV Channel 5. Thus, this freed up Channel 38 for use by KSEE-DT, as a solution to the co-channel interference problem the Commission created when it assigned to KSEE-DT the same frequency in use for land mobile operations in both Los Angeles and San Francisco.

As shown by the attached OET-69 interference study, Figure 8, KSEE-DT at Meadow Lakes, with the same transmitting facilities as now used on DTV Channel 16, has *zero* predicted interference to other stations. As shown by the attached OET-69 coverage study, Figure 9, KSEE-DT as DTV Channel 38 with a main beam effective radiated power (ERP) of 326 kW (DA) would have an interference-free land area coverage of 21,023 square kilometers and 1,200,726 persons (intentionally still 1990 Census), and it is proposed that the Commission use these numbers as the new "baseline" service for KSEE-DT as D38. An interference study using the Commission's own tv_process software returns identical results, save only for the continued presence of the now no longer in existence KNSO-DT D38 allotment. If that portion of the tv_process study is ignored (as it should be), then FCC staff

running tv_process for KSEE-DT as D38 at 326 kW ERP (DA) should find that the proposal meets all FCC Rules and policies regarding DTV stations.

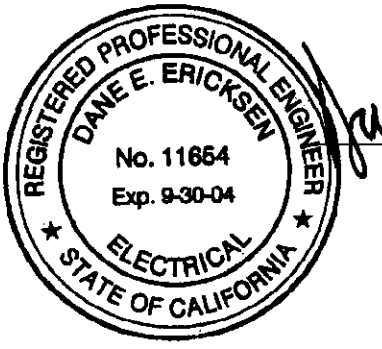
Summary

KSEE-DT built, at considerable expense, its DTV transmitting facilities on the channel selected by the FCC, and in full compliance with all FCC Rules and policies, only to find that, through no fault or negligence on its part, the present operation on DTV Channel 16 is causing interference to co-equal commercial Channel 16 land mobile operations in the San Francisco Bay Area and to public safety Channel 16 land mobile operations in the Northern portion of Los Angeles County. KSEE-DT has determined that its DTV operations can be shifted to Channel 38, in full compliance with all FCC Rules and policies, a frequency where there is no threat of interference to co-channel land mobile operations. Accordingly, it is respectfully requested that the FCC issue an expedited Notice of Proposed Rulemaking to move KSEE-DT from D16 to D38.

List of Figures

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. San Francisco Channel 16 land mobile allocation maps
2. Los Angeles Channel 16 land mobile allocation maps
3. KSEE-DT azimuth and elevation patterns with respect to LASD operations
4. Terrain profiles from KSEE-DT to LASD receive sites
5. KSEE-DT azimuth and elevation patterns with respect to Champion operations
6. Maps showing locations of Champion land mobile receive sites
7. Terrain profiles from KSEE-DT to Champion receive sites
8. OET-69 interference study for KSEE-DT as D38
9. OET-69 coverage study for KSEE-DT as D38.

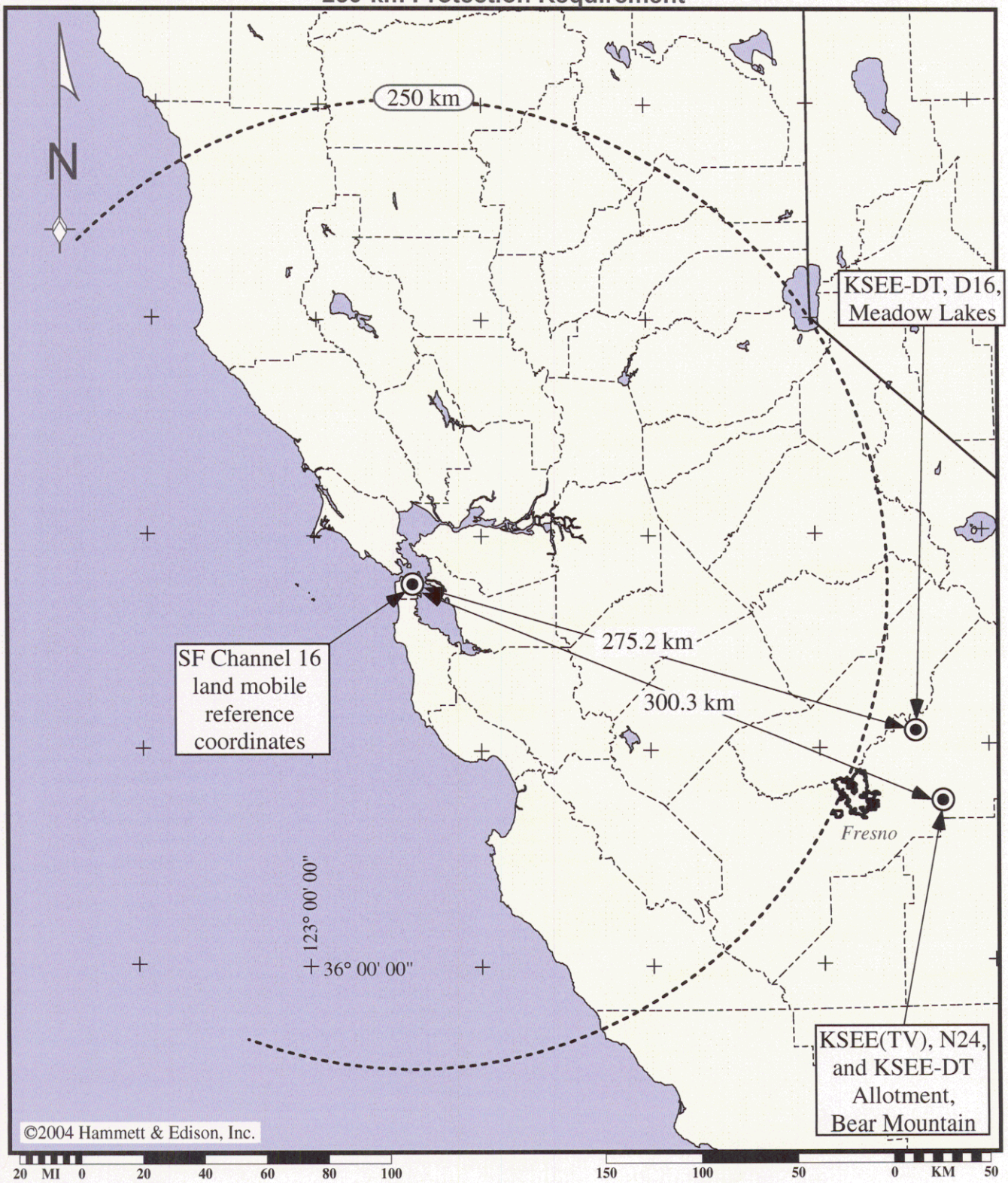


Dane E. Ericksen, P.E.

April 26, 2004

Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

San Francisco Land Mobile Channel 16
250-km Protection Requirement



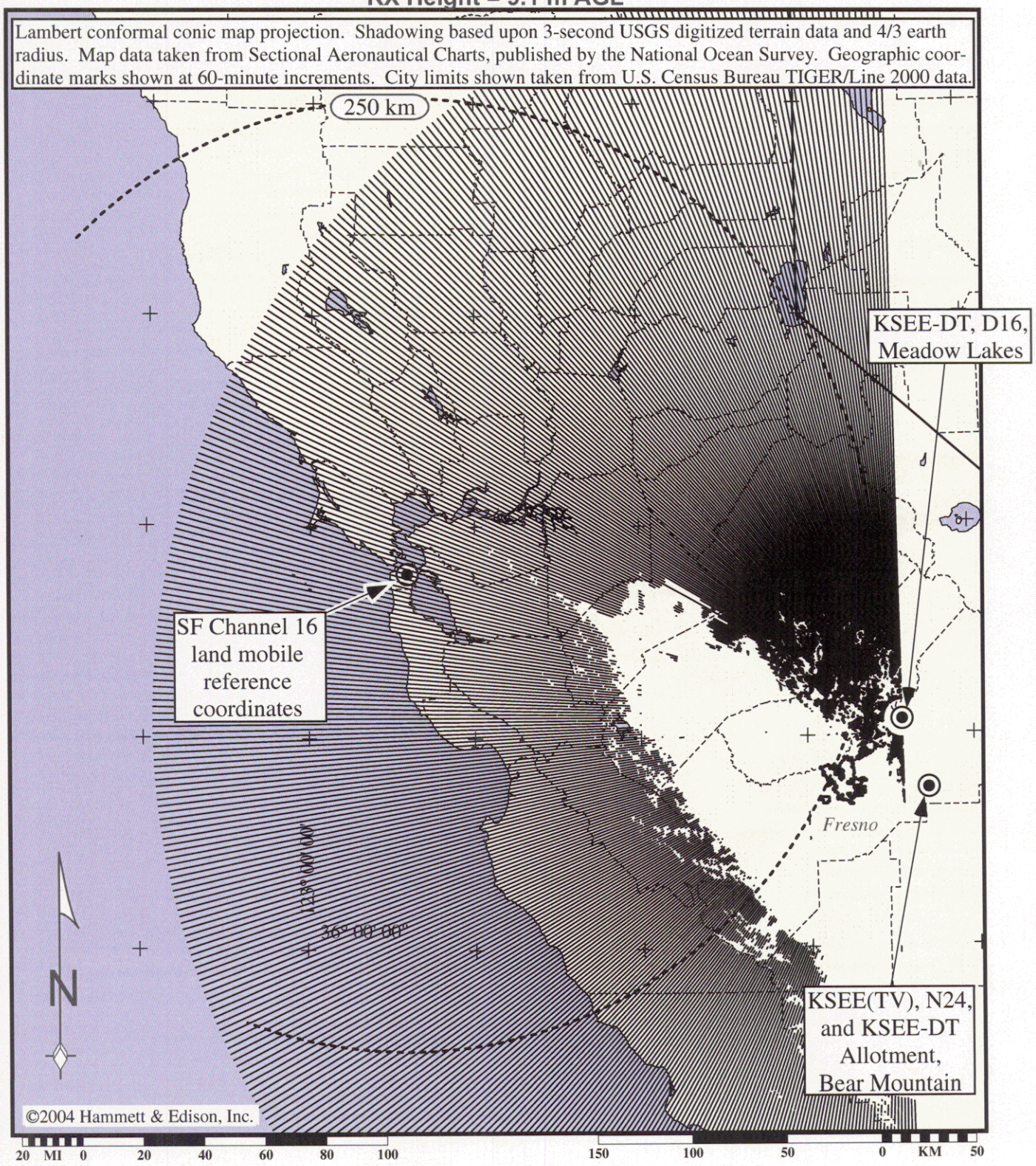
Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 60-minute increments. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data.

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

040311
Figure 1A

Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

KSEE-DT Line-of-Sight Conditions
TX C.O.R. = 72.3 m AGL, 1,427.4 m AMSL
RX Height = 9.1 m AGL

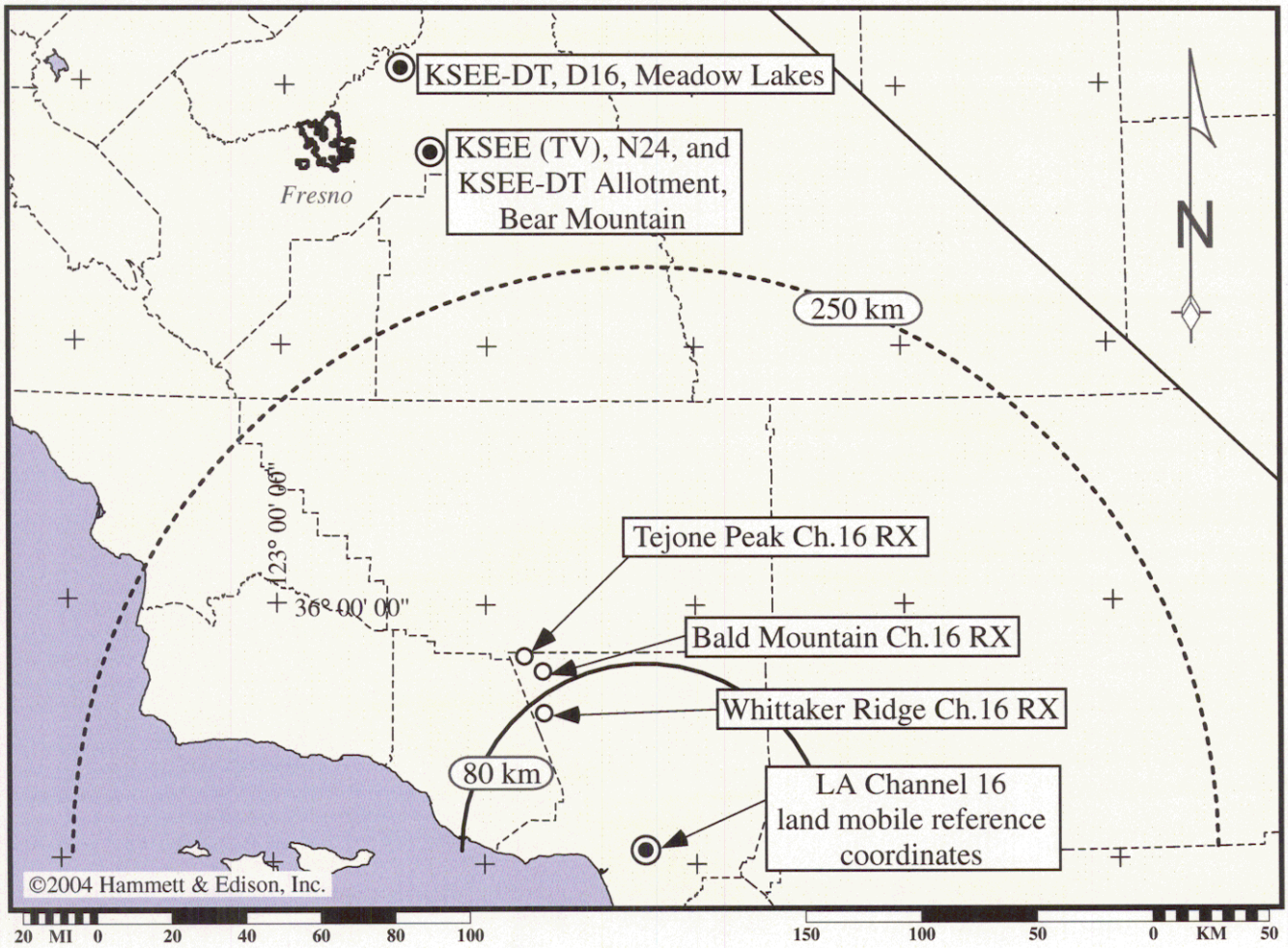


HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

040311
Figure 1B

Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

Los Angeles Land Mobile Channel 16
250-km Protection Requirement and
80-km Base Station Requirement

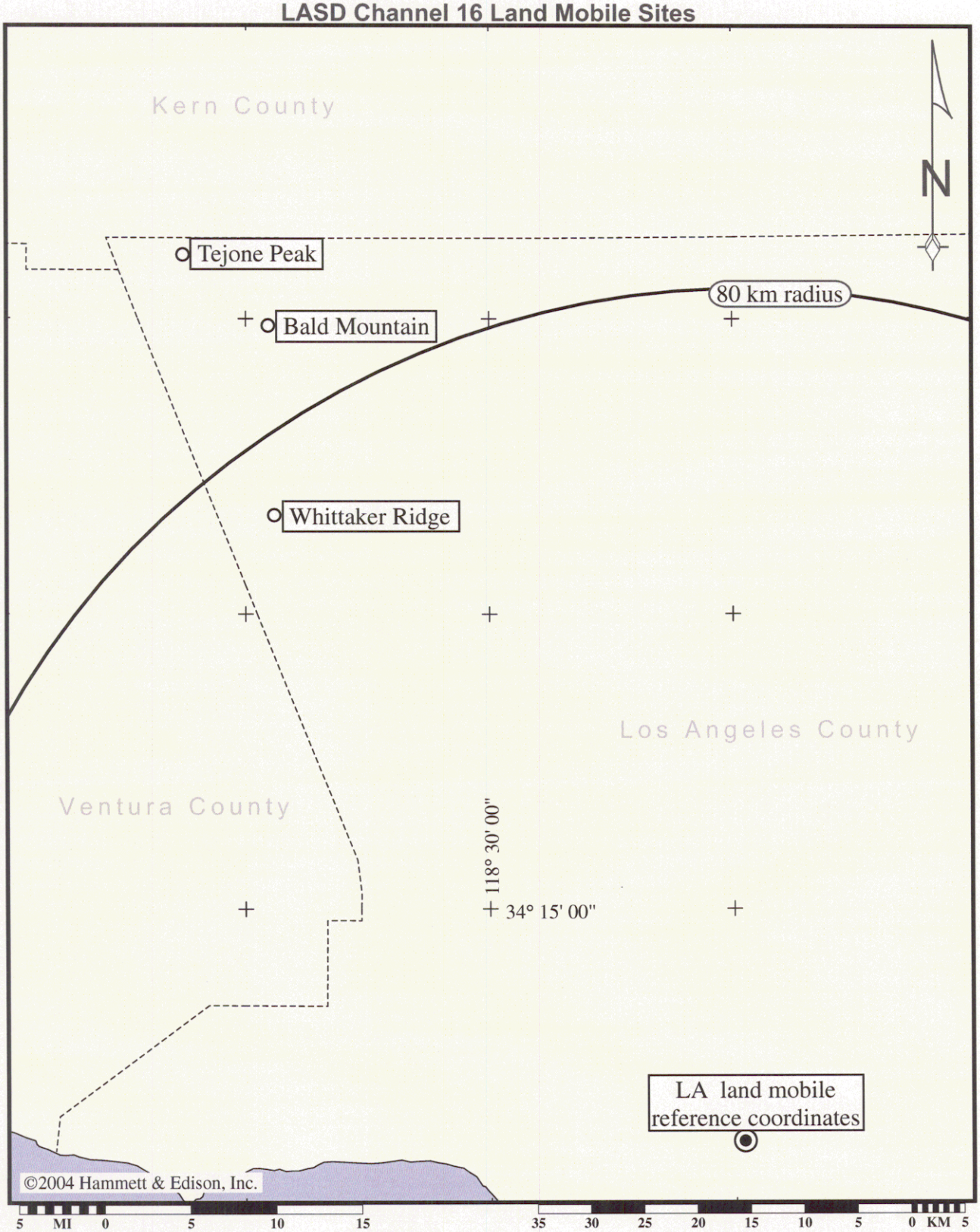


KSEE-DT to Tejone Peak RX:	257.4 km
KSEE-DT to Bald Mountain RX:	265.9 km
KSEE-DT to Whittaker Ridge RX:	283.4 km

LA reference coordinates to Tejone Peak:	98.4 km
LA reference coordinates to Bald Moutain:	88.7 km
LA reference coordinates to Whittaker Ridge:	73.5 km

Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 60-minute increments. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data.

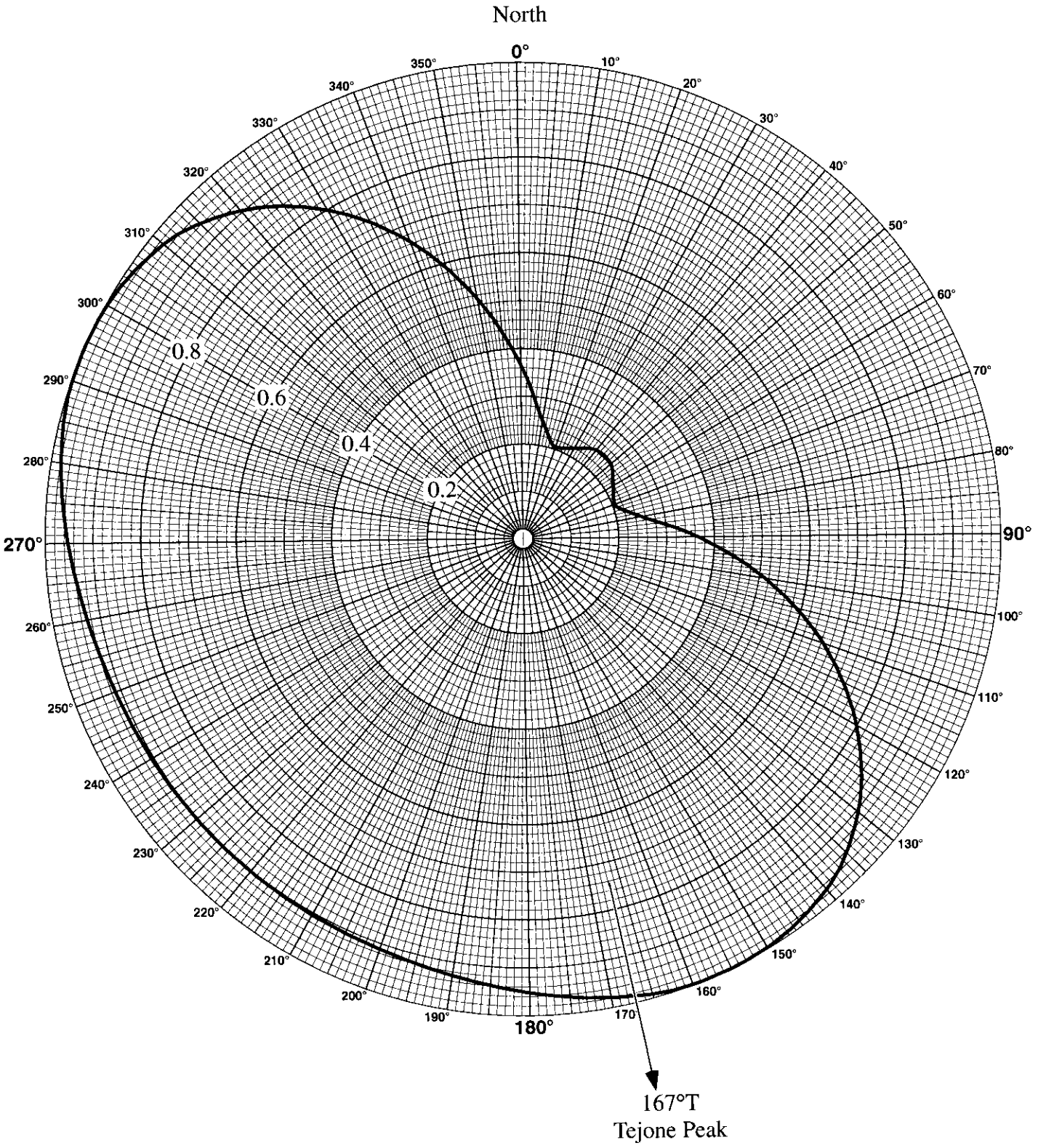
LASD Channel 16 Land Mobile Sites



Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 15-minute increments. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data.

Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

KSEE-DT Azimuth Pattern
Relative Field

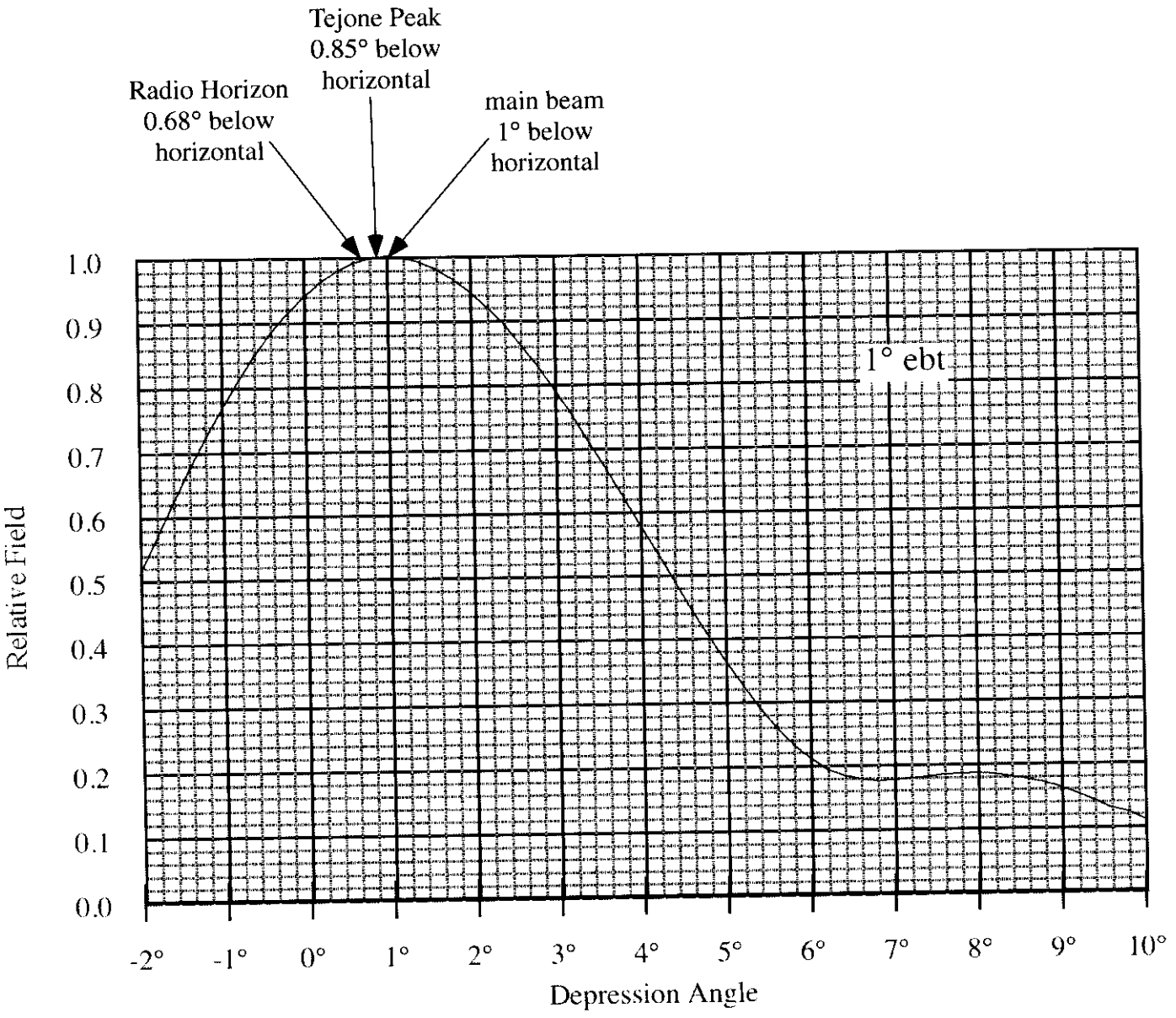


HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

040311
Figure 3A

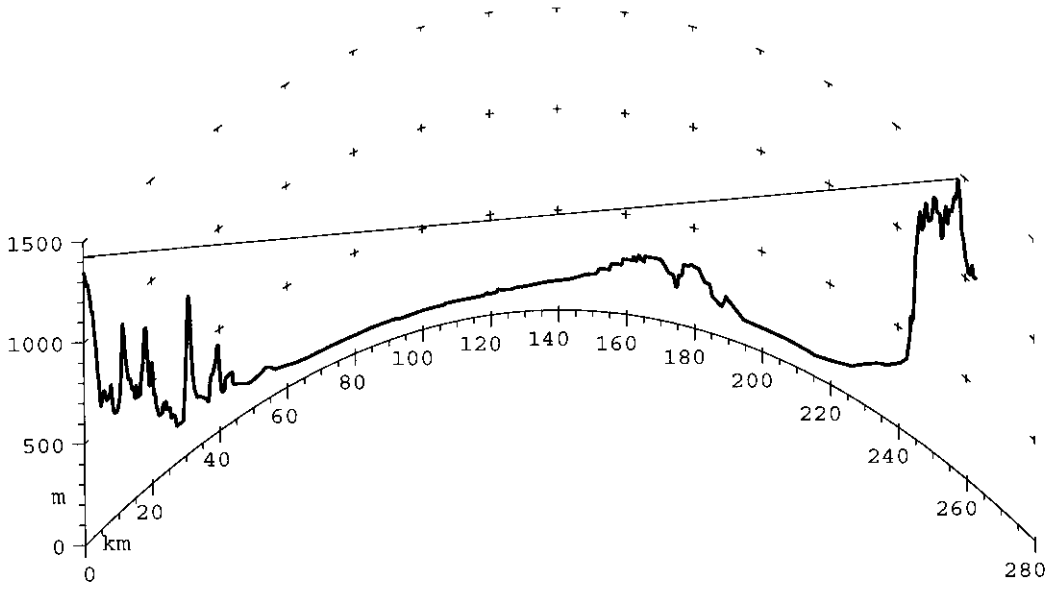
Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

KSEE-DT Elevation Pattern (Relative Field)



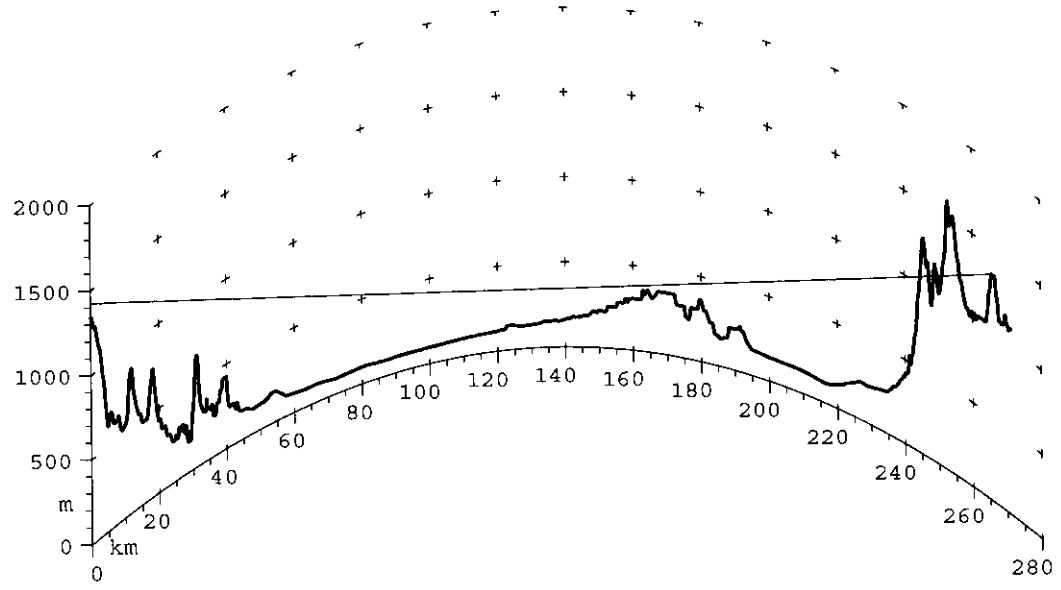
Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking to Change Frequency to DTV Channel 38

Terrain Profiles to LA County Channel 16 Receive Sites



37°04'19"N 119°25'49"W to 34°48'13"N 118°48'53"W, 4/3 earth, USGS 3" data

Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Los Angeles County Channel 16 land mobile at Tejone Peak. Path is 257.4 kilometers bearing 167.4°T. Profile extends 5 kilometers beyond the Tejone Peak receive site.



37°04'19"N 119°25'49"W to 34°44'40"N 118°43'38"W, 4/3 earth, USGS 3" data

Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Los Angeles County Channel 16 land mobile at Bald Mountain. Path is 265.9 kilometers bearing 166.0°T. Profile extends 5 kilometers beyond the Bald Mountain receive site.

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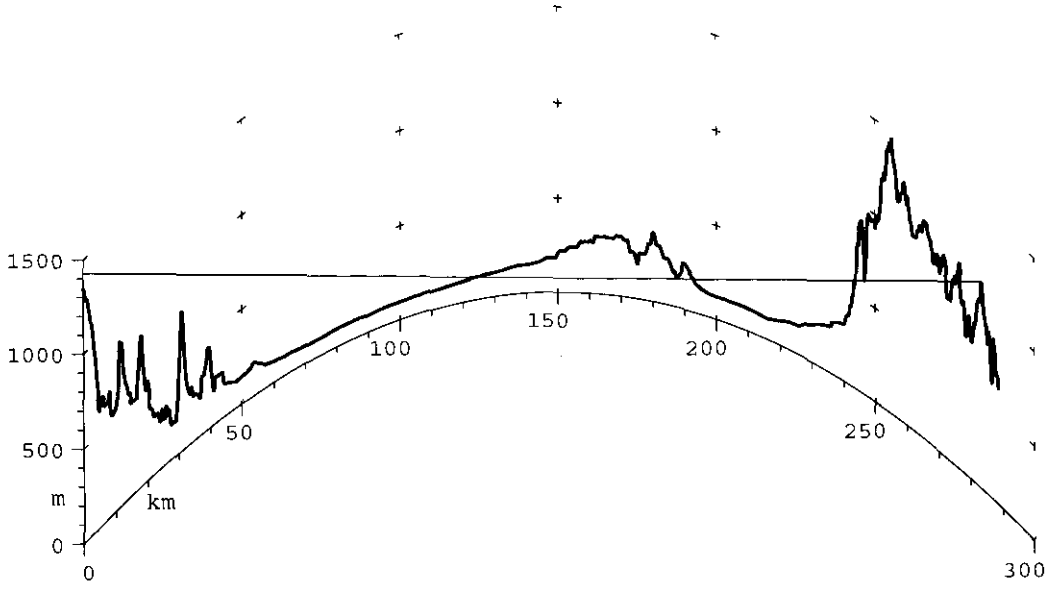
Terrain Profiles to LA County Channel 16 Receive Sites



Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Los Angeles County Channel 16 land mobile at Whittaker Ridge. Path is 283.4 kilometers bearing 166.8°T. Profile extends 5 kilometers beyond the Whittaker Ridge receive site.

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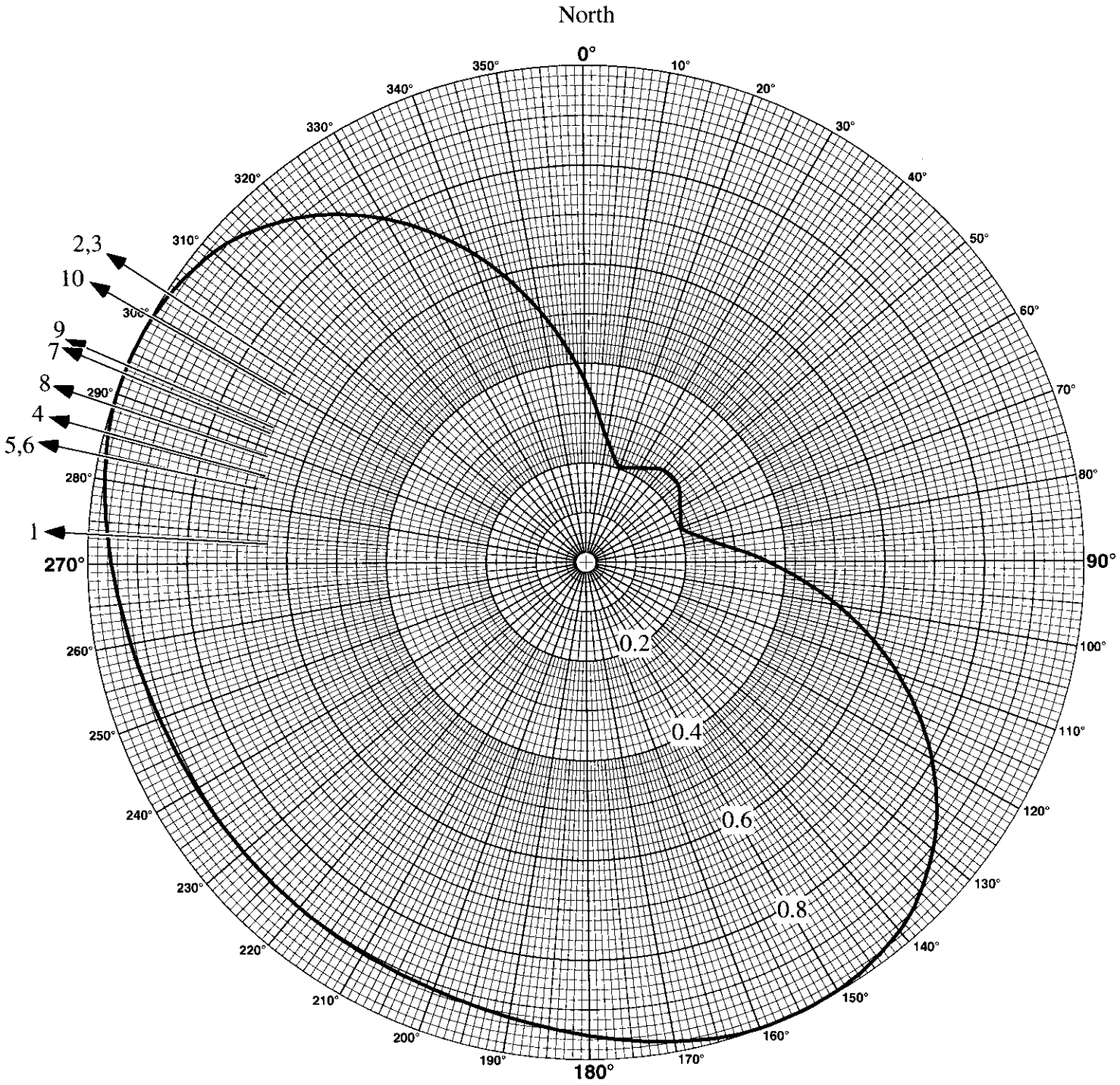
KSEE-DT Azimuth Pattern
Relative Field



Numbers and directions refer
to CCSI receive site locations;
see Figures 5C and 6.

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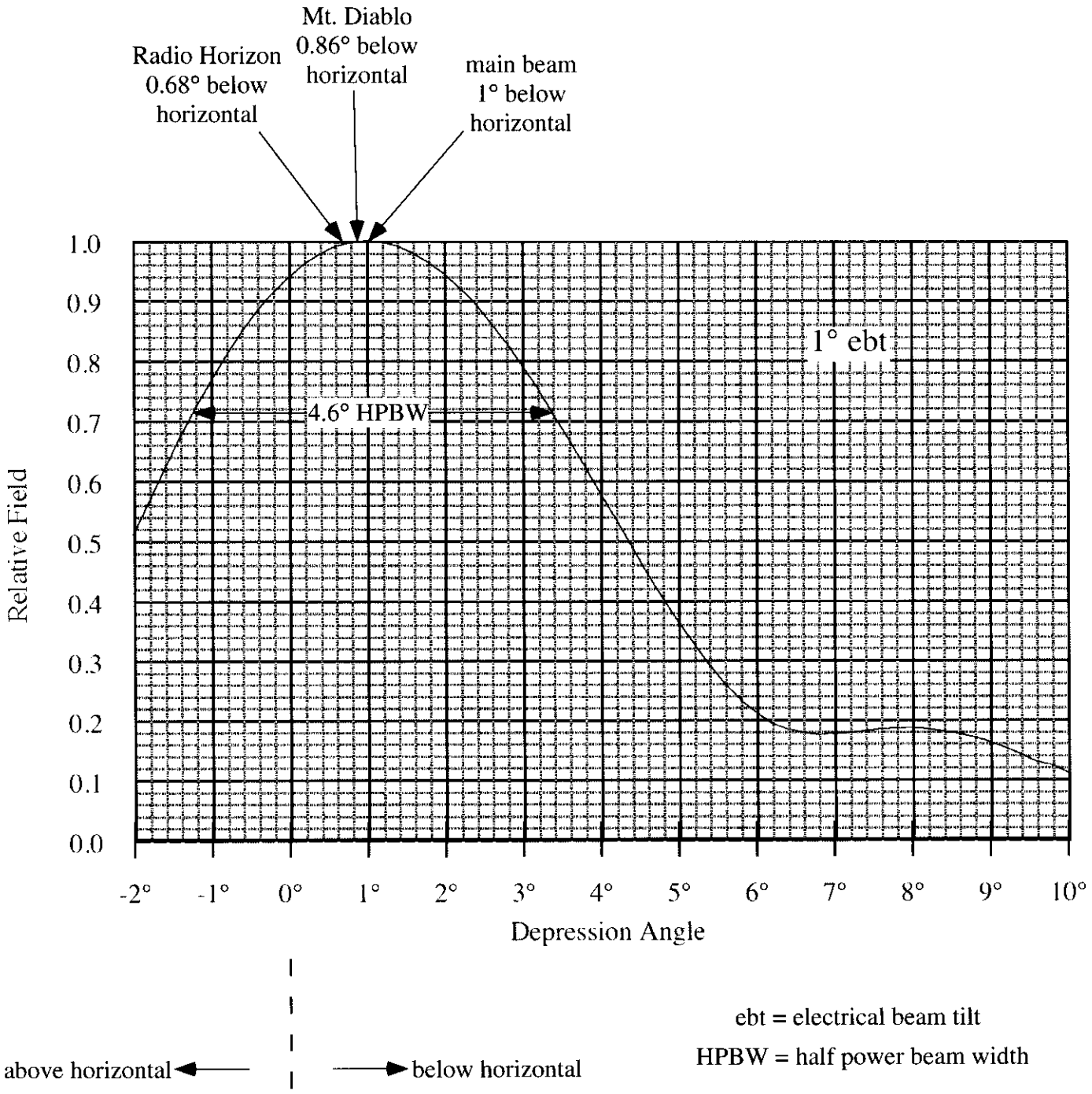
KSEE-DT Elevation Pattern (Relative Field)



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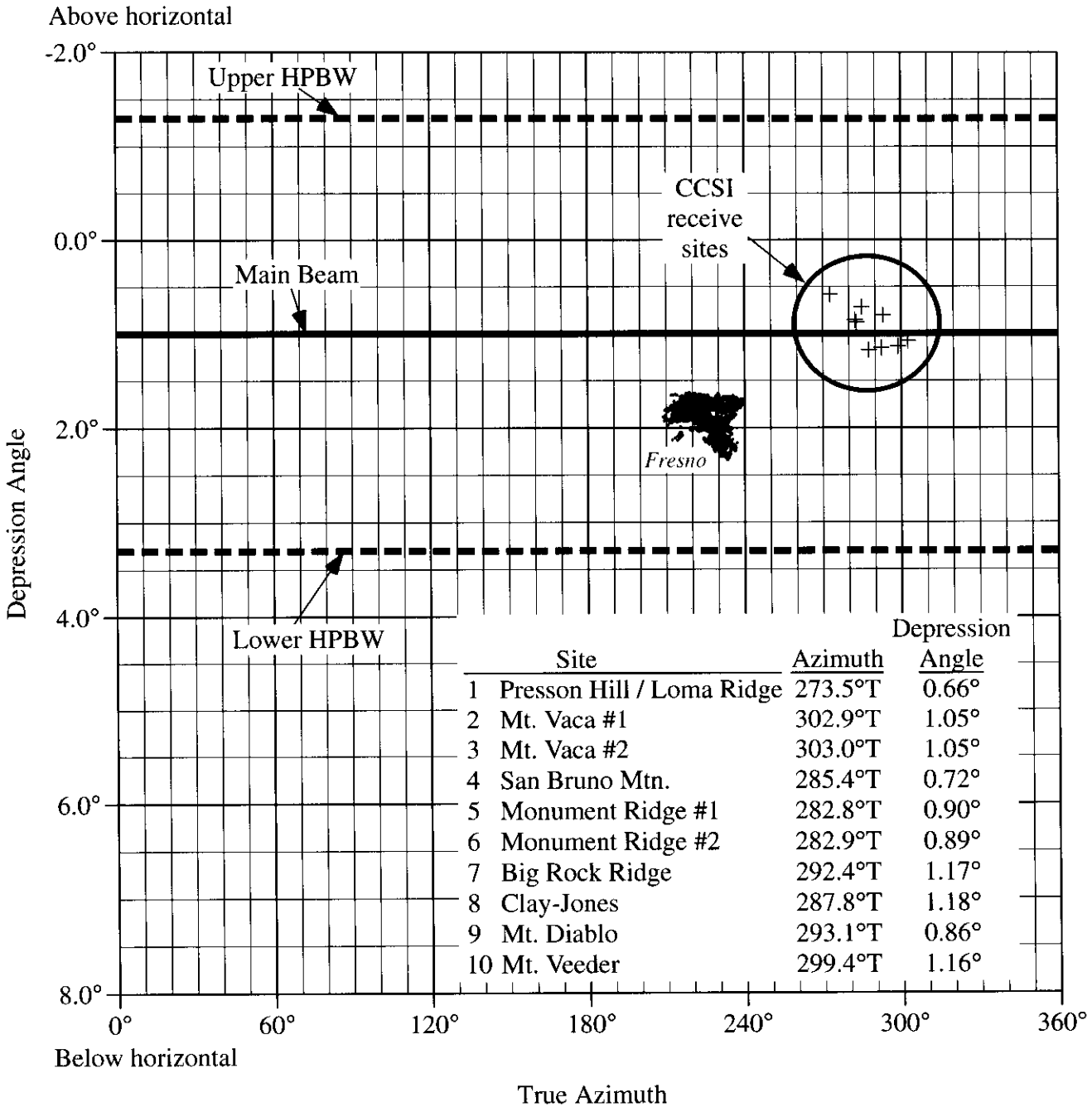
Depression Angles vs. Azimuth from KSEE-DT Antenna Fresno-only Centroids



	Site	Azimuth	Depression Angle
1	Presson Hill / Loma Ridge	273.5°T	0.66°
2	Mt. Vaca #1	302.9°T	1.05°
3	Mt. Vaca #2	303.0°T	1.05°
4	San Bruno Mtn.	285.4°T	0.72°
5	Monument Ridge #1	282.8°T	0.90°
6	Monument Ridge #2	282.9°T	0.89°
7	Big Rock Ridge	292.4°T	1.17°
8	Clay-Jones	287.8°T	1.18°
9	Mt. Diablo	293.1°T	0.86°
10	Mt. Veeder	299.4°T	1.16°

Dots represent 2000 U.S. Census Blocks.

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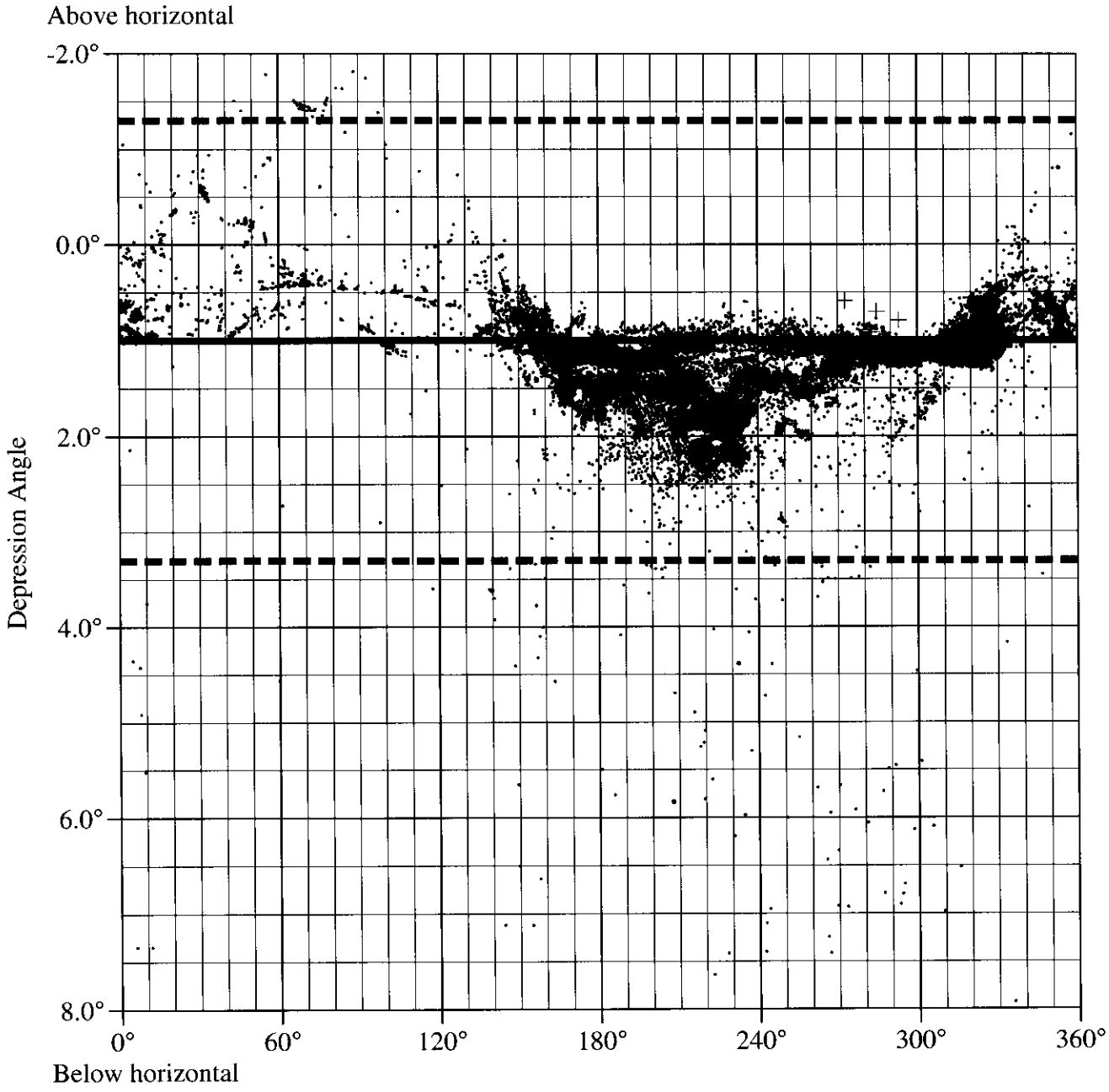
Depression Angles vs. Azimuth from KSEE-DT Antenna All Centroids within 300 km



Dots represent 2000 U.S. Census Blocks.

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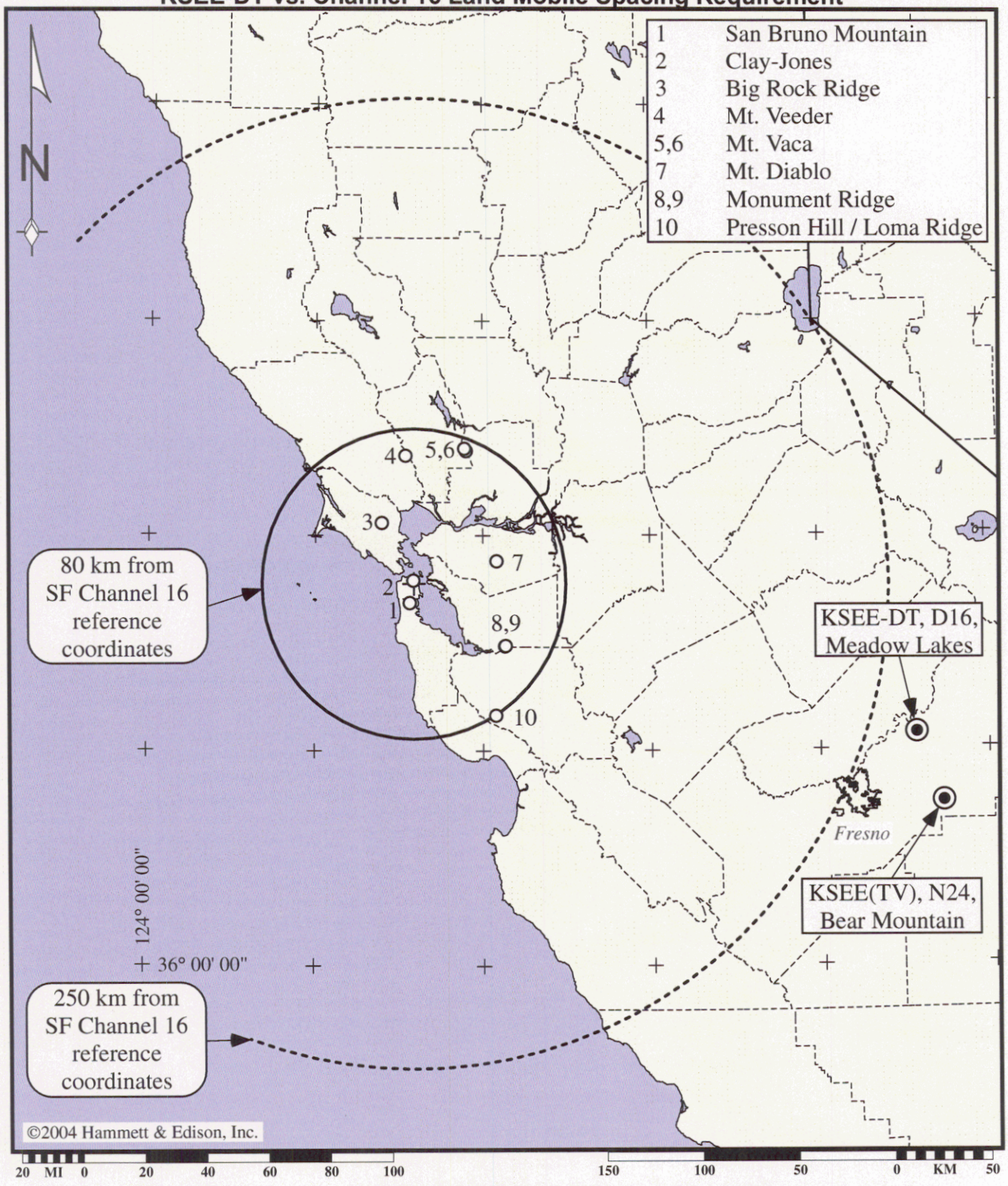
KSEE-DT vs. Channel 16 Land Mobile Spacing Requirement



Albers equal area map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 60-minute increments. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data.

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Figure 6A

Station KSEE-DT • DTV Channel 16 • Fresno, California
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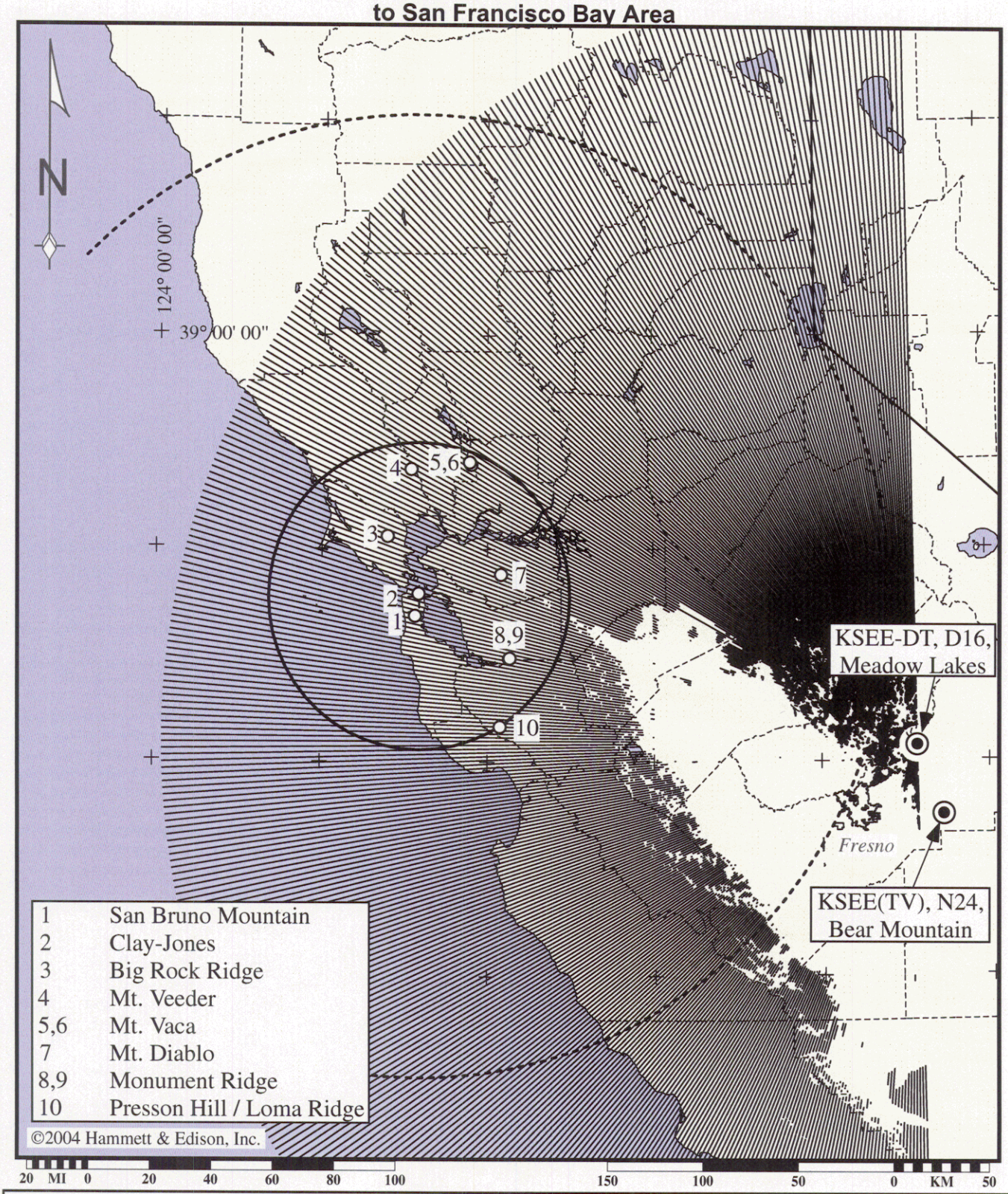
Line-of-Sight Conditions from KSEE-DT to San Francisco Bay Area



Albers equal area map projection. Shadowing based upon 3-second USGS digitized terrain data and 4/3 earth radius. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 60-minute increments. City limit taken from U.S. Census Bureau TIGER/Line 2000 data. 9.1 m AGL RX height.

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Figure 6B

Station KSEE-DT • DTV Channel 16 • Fresno, California
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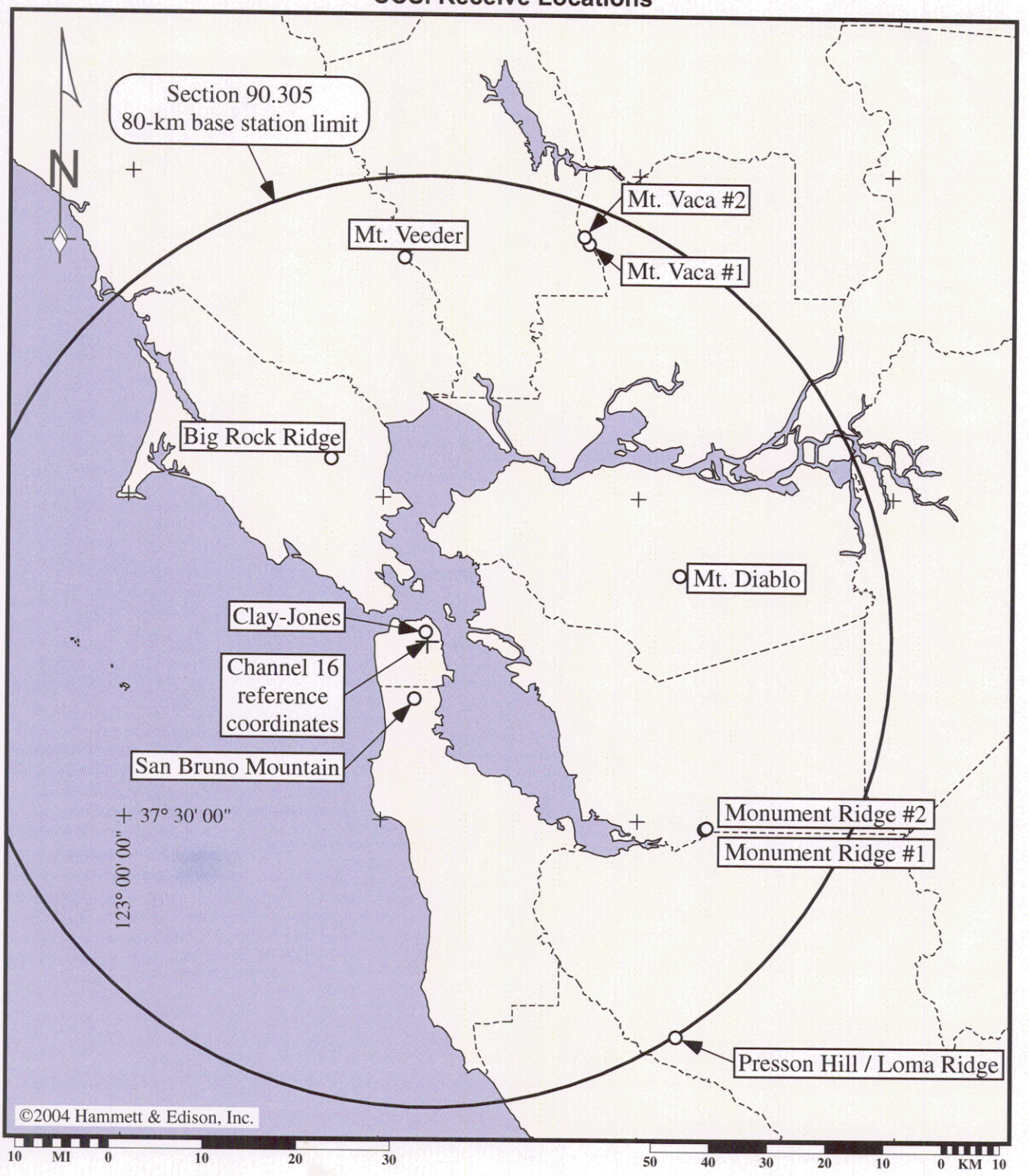
CCSI Receive Locations



Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 30-minute increments.

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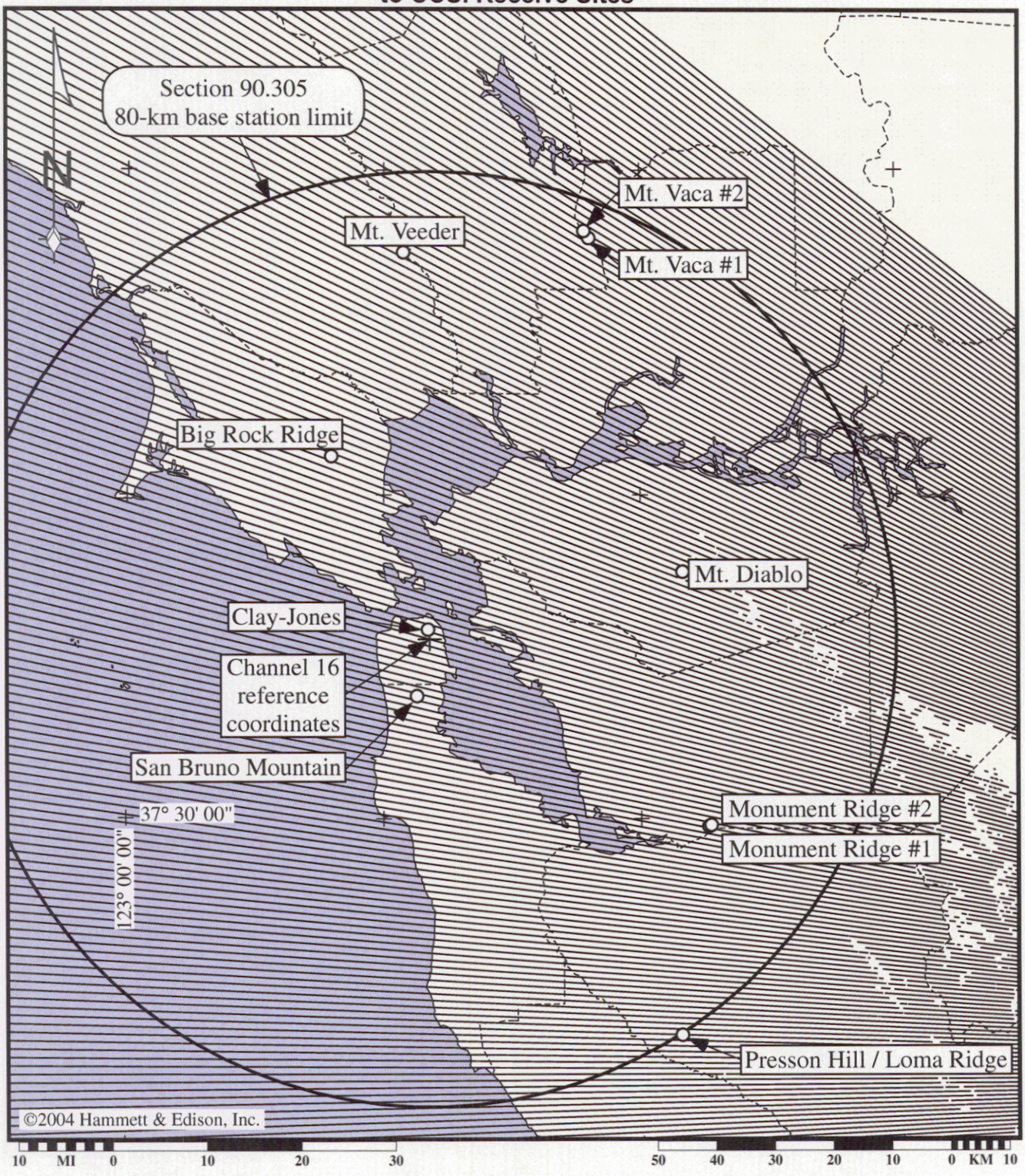
Figure 6C

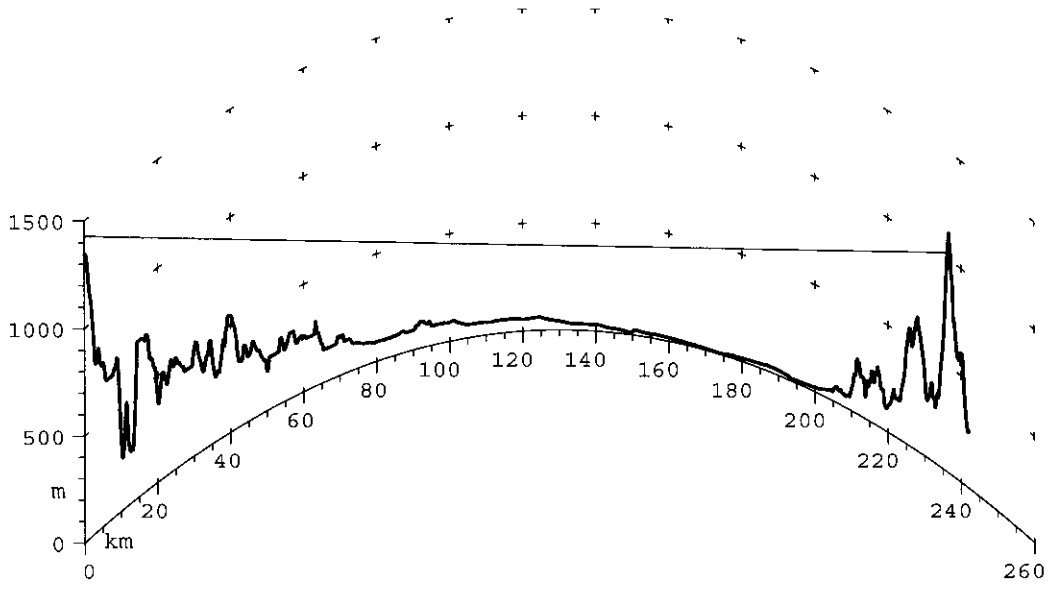
Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

Line-of-Sight Conditions from KSEE-DT to CCSI Receive Sites



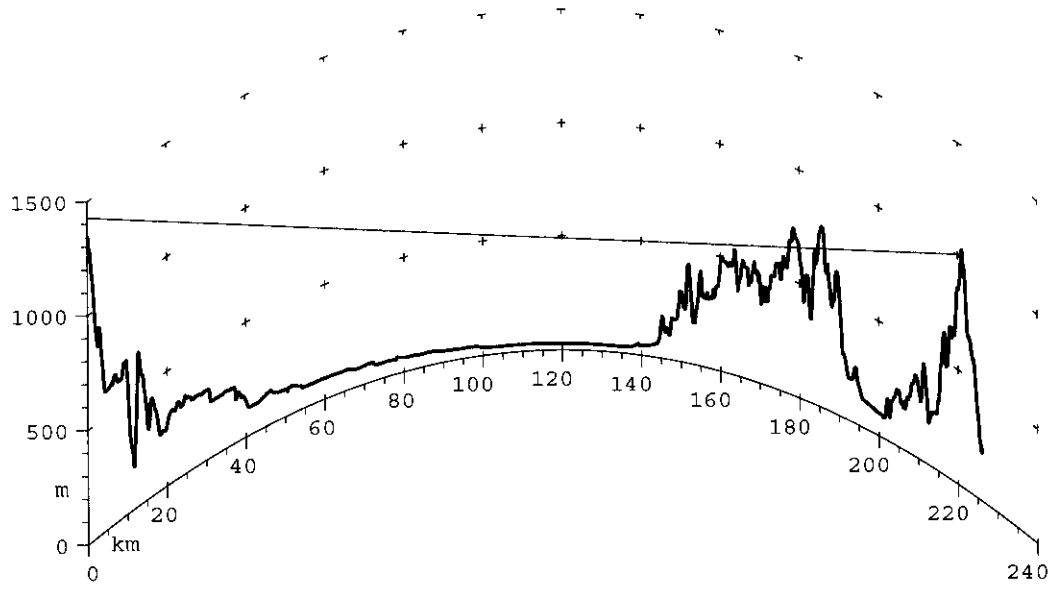
Lambert conformal conic map projection. Shadowing based upon 3-second USGS digitized terrain data and 4/3 earth radius. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 30-minute increments. 9.1 m AGL RX height.

Terrain Profiles to CCSI Mt. Diablo and Presson Hill (aka Loma Ridge) Receive Sites



37°04'19"N 119°25'49"W to 37°52'54"N 121°55'05"W, 4/3 earth, USGS 3" data

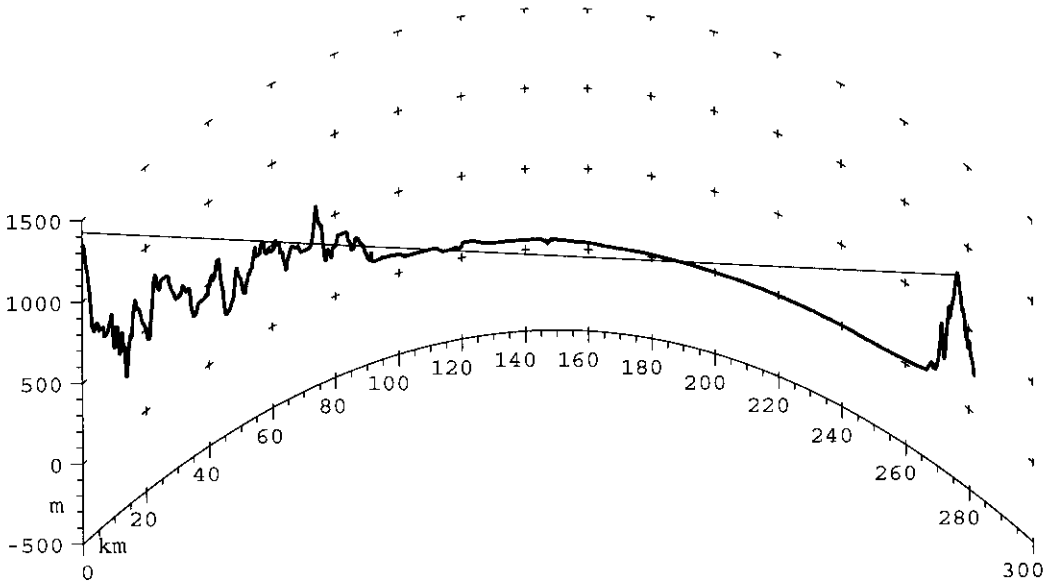
Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Champion Communications Channel 16 receive site at Mt. Diablo. Path is 237.7 kilometers bearing 293.1°T. Profile extends 5 kilometers beyond this receive site.



37°04'19"N 119°25'49"W to 37°10'02"N 121°55'26"W, 4/3 earth, USGS 3" data

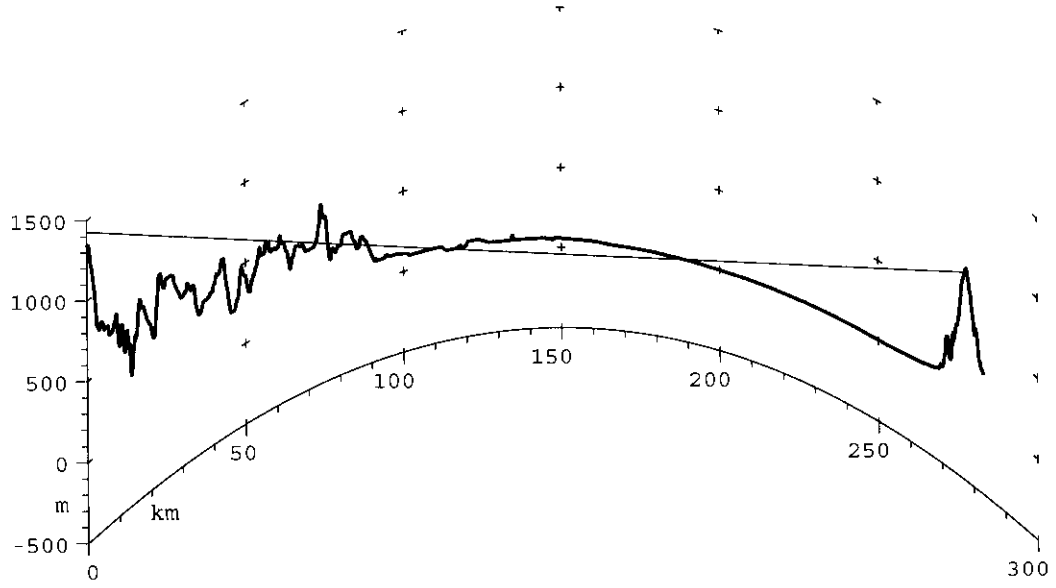
Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Champion Communications Channel 16 receive site at Presson Hill (aka Loma Ridge). Path is 221.9 kilometers bearing 273.5°T. Profile extends 5 kilometers beyond this receive site.

Terrain Profiles to CCSI Mt. Vaca Receive Sites



37°04'19"N 119°25'49"W to 38°23'43"N 122°05'56"W, 4/3 earth, USGS 3" data

Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Champion Communications Channel 16 receive site #1 at Mt. Vaca. Path is 277.3 kilometers bearing 302.9°T. Profile extends 5 kilometers beyond this receive site.



37°04'19"N 119°25'49"W to 38°24'23"N 122°06'30"W, 4/3 earth, USGS 3" data

Terrain profile from KSEE-DT, D16, Fresno, CA, Meadow Lakes transmitting site to Champion Communications Channel 16 receive site #2 at Mt. Vaca. Path is 278.7 kilometers bearing 303.0°T. Profile extends 5 kilometers beyond this receive site.

Station KSEE-DT • DTV Channel 16 • Fresno, California
Petition for Rulemaking To Change Frequency to DTV Channel 38

OET-69 Interference Study

Interference analysis
tvixstudy 2.3.16

This interference study is based on 2.00 x 2.00 kilometer cells and terrain profiles with 10.0 points per kilometer. FCC processing using these finer-resolution parameters is hereby requested, pursuant to the Commission's August 10, 1998, Public Notice, "Additional Applications Processing Guidelines for DTV."

Before case parameters:
(same as "Original" below)

After case parameters:

	--Modified--	--Original--
Station:	D38 KSEE LIC	D16 KSEE LIC
City:	FRESNO, CA	FRESNO, CA
Coordinates:	N 37-04-19.1	N 37-04-19.0
	W 119-25-48.8	W 119-25-48.0
Height AMSL:	1427.4 m	1427.0 m
Maximum ERP:	326 kW	326 kW
Azimuth pattern:	C170az.pat	DIE-38027_TFU-10DS
Orientation:	225.0	0.0
Elevation pattern:	TFU-10DSCelv.pat	OET-69 generic
Electrical tilt:	1.00	
Service level:	41.0 dBu	38.9 dBu

			Before			After		
Protected station		BasePop 1000s	IX Change 1000s	%Base	IX Change 1000s	%Base	%Chng
N30 KFSN-TV LIC	FRESNO, CA	1,145	12	1.0	12	1.0	0.0
N38 KCNS CP	SAN FRANCISCO, CA	5,746	28	0.5	29	0.5	0.0
N38 KCNS LIC	SAN FRANCISCO, CA	5,746	28	0.5	29	0.5	0.0
N24 KSEE LIC	FRESNO, CA	1,139	0	0.0	0	0.0	0.0
N38 KPMR CP	SANTA BARBARA, CA	952	32	3.4	32	3.4	0.0
N38 KPMR LIC	SANTA BARBARA, CA	952	32	3.4	32	3.4	0.0
D38 KPXN-DT CP	SAN BERNARDINO, CA	11,248	-1,566	-13.9	-1,566	-13.9	0.0
D38 KPXNDT allot	SAN BERNARDINO, CA	11,248	153	1.4	153	1.4	0.0

OET-69 Coverage Study

Interference analysis
tvixstudy 2.3.16

This interference study is based on 2.00 x 2.00 kilometer cells and terrain profiles with 10.0 points per kilometer. FCC processing using these finer-resolution parameters is hereby requested, pursuant to the Commission's August 10, 1998, Public Notice, "Additional Applications Processing Guidelines for DTV."

Station parameters:

	--Modified--	--Original--
Station:	D38 KSEE LIC	D16 KSEE LIC
City:	FRESNO, CA	FRESNO, CA
Coordinates:	N 37-04-19.1	N 37-04-19.0
	W 119-25-48.8	W 119-25-48.0
Height AMSL:	1427.4 m	1427.0 m
Maximum ERP:	326 kW	326 kW
Azimuth pattern:	C170az.pat	DIE-38027_TFU-10DS
Orientation:	225.0	0.0
Elevation pattern:	TFU-10DSCelv.pat	OET-69 generic
Electrical tilt:	1.00	
Service level:	41.0 dBu	38.9 dBu

		Total IX		Unique IX	
Interfering station		Area,km2	Population	Area,km2	Population
N38 KCNS CP	SAN FRANCISCO, CA	316.7	675	304.7	621
N38 KPMR CP	SANTA BARBARA, CA	64.1	325	52.1	271
D38 KPXN-DT CP	SAN BERNARDINO, CA	0.0	0	0.0	0

Service conditions	Area,km2	Population
Noise-limited service	32524.8	1,238,376
Terrain-limited service	21391.9	1,201,672
Interference-free service	21023.1	1,200,726